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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,091	06/15/2001	Kiril A. Pandelisev	PHOENIX SCIENTIFIC	7262

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EXAMINER

HOFFMANN, JOHN M

ART UNIT PAPER NUMBER

1731

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,091

Applicant(s)

PANDELISEV, KIRIL A.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-64, 68-72, 74-77, 83, 85, 87, 88 and 91-150 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 63, 65-67, 78-82, 84, 86, 89 and 90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Applicant's election with traverse of Group II and Species A1, B2, C3, D1, E1, F3, G2, H1, I2, J1, K2, L2, M1, N1, O1, and P2 in the paper dated 7 July 2003 is acknowledged. The traversal is on the ground(s) that the inventions are neither independent nor distinct. This is not found persuasive because the original requirement (5-15-03) presents a *prima facie* showing that the inventions are distinct. No argument or evidence to show an error is presented.

A further argument regarding combination-subcombination is made. Examiner does not understand this because the requirement makes no assertion of a combination-subcombination relationship between any inventions.

IT is further argued that the process and apparatus are not independent. This is immaterial: the restriction is based on distinctness, not independence.

It is still further argued that the Office never stated and provided examples that there would be a serious burden to examine all the inventions. This is irrelevant because the restriction requirement contains a *prima facie* showing that serious burden exists (See MPEP 803). This showing may be rebutted by appropriate showings or evidence by the applicant. However applicant has not made any showings or presented evidence.

It is further argued that the Office never provided examples to support conclusions. This is incorrect, see the restriction: page 2, line 16 (powdered-metal coating to a metal part); page 3, line 2, (extruding glass product from a melt); page 3, lines 9-10 (a metal engine part).

It is also argued restriction under MPEP 806.05(c) cannot be established. Applicant may be correct. But the relevance is not understood - the restriction requirement does not indicate this to be a basis for the present restriction.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-64, 68-72, 74-77, 83, 85, 87-88, and 91-150 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper of 8 September 2003.

Applicant provided a list of the claims which read on the elected invention/species. Examiner disagrees in part as follows:

Claim 17, 117, 123, 131, and 143 require forming/forming a porous silica preform "on" the substrate. However, Applicant elected specie E1 ^{i.e.} ~~(E1)~~ did not elect any of species E2-E5). Specie E1 is directed to MCVD. As can be seen in Buck's "Fundamentals of Optical Fibers" (1995) pages 93-95, in the MCVD, the entire substrate-plus-soot make up the preform. See the last full paragraph of page 95 which states, "the tube is collapsed...to form the solid preform". The substrate/tube is an integral part of the preform. The preform is not "on" the substrate (or in any way separate from the substrate). Therefore claims 17, 117, 123, 131, and 143 (and the claims that depend therefrom) are mutually exclusive of the MCVD method and thus

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are not covered by specie E1. Therefore claims 17-25, 117, 120, 123-127, 131-150 are drawn to a nonelected specie.

Likewise, claims 95 and 104 requires that the preform is removed from the substrate which is mutually exclusive of the elected MCVD specie: claims 95-116 are drawn to a nonelected species. Claims 17, 117, 123, 131, 143, 95, 104 are drawn to specie E2.

It is noted that Applicant has not defined MCVD in a manner which is different from the usual definition.

Claims 68 does not read on Specie E1 (or C3). The "CVD" part of "MCVD" signifies chemical vapors are used - not "preformed particles". Therefore claims 68 (and dependent claims 69-72) are drawn to non-elected species and are withdrawn from consideration.

Furthermore, claims 83, 85, 87-88 and 91-94 are also mutually exclusive of E1, because the preform and the substrate are separate features.

Claims 76-77 depend from claim 74 which applicant indicates do not read on the elected species.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 65-67, 73, 78-82, 89-90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 65, line 2, it is unclear if there is suppose to be a comma after "chamber".
Claim 73, there is no antecedent basis for "the directing" - it is unclear if this requires directing in claim 65, or if it is optional.

Claims 84, 86 and 89-90 refer to vitrifying the preform. The preform is made of glass and there for is vitreous (i.e. vitrified). It is unclear what is meant by vitrifying that which is already vitreous.

Claim 82 refers to "the external heater". But there is no prior mention of this heater. It is unclear how to interpret this.

Claim 89 refers to "The porous substrate" but there is no antecedent basis for a porous substrate. IT is unclear if claim 82 is suppose to require a porous substrate, or if claim 89 is not suppose to require a porous substrate or not.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 65-67, 73, 78-82, 84, 86 and 89-90 are rejected under 35 U.S.C. 103(a)
as being unpatentable over Abe 4292063.

Abe discloses the method substantially as claimed except for the chamber. It would have been obvious to perform the method in a chamber so as to protect the tube from something accidentally falling on it. And to protect the artisan from the plasma and/or hot glass. It is further noted that a room or a factory can be considered to be a chamber. The claims to don't specify how large the chamber must be.

As to heating the tube to a deposition temperature. Since the soot deposits on the wall of the tube (col. 3, lines 7-9) the wall must be at a "deposition temperature". The turning of the substrate is disclosed at col. 3, line 1.

Claim 66: since the material is sintered (col. 3, line 12-13) the material had pores. It is well understood that a soot layer, has empty spaces (pores) between the particles.

Claim 67 covers 0% to 100%. This language is clearly met.

Claim 73: See col. 4, lines 49-50. Temperatures above 200 C are high temperatures.

Claim 78 requires heating the preform from less than about 700 to about 1500 or more. From col. 3, lines 7 and 18: it is heated from 500 to at least 1500 C.

Claim 79 requires starting about at 1200 C and heating to 1400 C. The claims are comprising in nature and do not preclude heating beyond 1400. It is clear that the Abe heating step would require passing from 1200 to 1400 C.

Claim 80: Abe discloses to sinter the glass - this is deemed to be controlling the density. Alternatively: it would have been obvious to sinter the glass to 100% density because if any pores remain, they could interfere with light, or make the fiber weak. It is deemed that this reads on controlling the density.

Claim 81: the Abe plasma 14 is within the substrate and heats the substrate. Burner 41 is an external heater. It would have been obvious to use more than one external burner, so that one can more quickly sinter the glass.

Claim 82: Col. 3, line 5 of Abe discloses that the heating is controlled. It is not stated that the external burner (41) or the pore size is controlled. It would have been obvious to repeat the Abe process many times, so as to form as much fiber as possible so as to make as much money as possible. It would have been obvious to have all the process parameters the same, so that the same product results each time. It is deemed that repeated the same process parameters results a controlling of the process parameters - including the external heater and the pore size. The "for controlling radial gradient..." is just an intended use limitation which does not result in a manipulative difference.

Claims 84 and 86, it is deemed that Abe vitrifies the glass in as much as Applicant does.

Claim 89 refers to "the porous substrate" but there is no prior mention of this. It is deemed that the broadest reasonable interpretation of this is "if there is a porous substrate, then introducing dopant through the porous substrate...." Abe does not have a porous substrate and thus need not feed dopant through anything. Alternatively, it appears that claim 4 of Abe discloses what Applicant intended to claim.

Claim 90: col. 2, lines 61-65 disclose reduction of pressure in the chamber prior to "vitrifying" (i.e. creating glass).

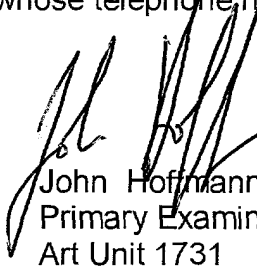
Information Disclosure Statement

The information disclosure statement filed 5 October 2001 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


John Hoffmann
Primary Examiner
Art Unit 1731

9-15-03

jmh